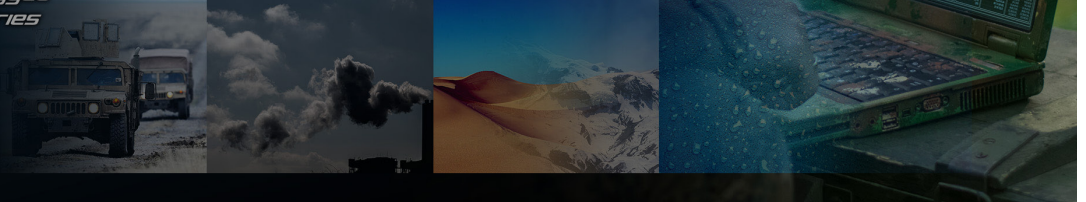


## Industrial Rugged PCIe SSD PV22D-M280 Rugged Model

A complete Solution for Secure Data Protection and Extreme Environments.



### PV22D-M280 Rugged Model

#### Product Features

- AES 256-bit Hardware Encryption
- Low-Density Parity-Check (LDPC) Code
- Global Wear Leveling
- DataRAID™
- DataDefender™
- SMART Read Refresh™

#### Security Features (optional)

- TCG Opal 2.0<sup>1</sup>/Self Encrypting Drives (SEDs)
- Instant Keychange
- MIL Erase<sup>2</sup>
- Digital Destruction
- Write Protect

#### Implementation Methods (optional)

- Software command
- Hardware
  - Connector pin
  - Slide switch

### MIL-STD Environmental Test

Item	Test Methods
Shock	MIL-STD-202G, Method 213B, Condition A
	MIL-STD-883K, Method 2002.5, Condition B
Vibration	MIL-STD-810G, Method 514.6, Procedure I, Category 24
	MIL-STD-810G, Method 514.6, Procedure I, Category 7
Humidity	MIL-STD-810G, Method 507.5, Procedure II
High Temp.	MIL-STD-810G, Method 501.5, Procedure II
	MIL-STD-810G, Method 501.5, Procedure I
Low Temp.	MIL-STD-810G, Method 502.5, Procedure II
	MIL-STD-810G, Method 502.5, Procedure I
Thermal Shock	MIL-STD-810G, Method 503.5, Procedure I-C
Altitude	MIL-STD-810G, Method 500.5, Procedure I
Salt Fog	MIL-STD-810G, Method 509.5, Procedure I
Radiation Test	MIL-STD-810G, Method 505.5, procedure II

1. TCG Opal 2.0 can only be triggered via software commands and cannot be implemented together with any of the other Security features.  
 2. Includes NSA9-12, DoD 5220.22-M, NSA Manual 130-2, USA-AF AFSSI 5020, USA-Army 380-19, USA Navy NAVSO P-5239-26, NISPOMSUP Chap 8, Sect. 8-501 and IREC (IRIG) 106.  
 3. DWPD (Drive Write Per Day) is calculated based on the number of times that user overwrites the entire capacity of an SSD per day of its lifetime during the warranty period.  
 4. The RMS value is measured with IOMeter 1GB Seq. Read/Write QD32/T1.

### SPECIFICATIONS

- Compliant with PCIe Express 3.1
- Compliant with NVMe 1.3
- Compatible with PCIe Gen3 x4 interface

#### Configuration

Capacity	• Single-sided: 120GB • Double-sided: 240, 480, 960, 1920GB
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NAND Flash Type	3D TLC (BiCS5)
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#### Performance

Sequential Read/Write (Max.)	2,390/2,200MB/s
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4K Random Read/Write (Max.)	211,000/311,000 IOPS
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#### Reliability

Endurance (Drive Writes Per Day: DWPD <sup>3</sup> )(Max.)	Up to 2.81 DWPD at 1920GB
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MTBF	>5,000,000 hours
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Features (optional)	• Thermal Throttling • Conformal Coating • Nano Coating • Sidefill • 30μ Gold Finger • Wide Temperature
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#### Environment

Operating Temperature	• Standard: 0°C to 70°C • Wide: -40°C to 85°C
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Storage Temperature	-55°C to 100°C
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#### Power Requirement

Supply Voltage	3.3 V ± 5%
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#### Power Consumption<sup>4</sup>

Low Power PS4 (L1.2)	< 5.5 mW
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Read (mA)	1,205 (rms)
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Write (mA)	1,125 (rms)
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Idle (mA)	250 (rms)
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Peak (mA)	580 (rms)
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#### Physical Characteristics

Form Factor	M.2 2280-D5-M Key
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Dimensions (mm)	• Single-sided: 22.00 x 80.00 x 2.58 • Double-sided: 22.00 x 80.00 x 4.08
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